Creating Custom Art Packs

Roku HD1000 Helpful Tips

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Introduction

The Roku HD1000 has the ability to display Art Packs – that is display a set of pictures with accompanying music. Roku offers several Art Packs for purchase at www.rokulabs.com. Some users, however, may want to create Art Packs of their own content. This document describes the files involved in an Art Pack and offers tips for those users who wish to create their own Art Packs. If you would like to look at an actual Art Pack, you may download the Art Pack that shipped with all HD1000s from http://www.rokulabs.com/support/downloads/democontent.php .
Note: The Art Pack described in this document makes use of features that require 1.5 or later of the HD1000 software. Visit http://www.rokulabs.com/updates to get the latest version of software for your HD1000.

Art Pack Components

An Art Pack consists of several components. They are:

- **Pictures** – The pictures in an Art Pack must all reside within a single directory hierarchy. They can be organized into sub-directories.
- **Music** – The Art Pack can be set to music. Multiple music files can be used, however they must all be in the same directory and currently only mp3 files are supported for Art Packs.
- **An Art Pack Script** – This is a standard Linux shell script that is responsible for running the various HD1000 applications required to run the Art Pack.
- **An optional Art Pack Icon** – This is a standard 32-bit PNG file that will be displayed in the Main Menu.
- **An Art Pack Descriptor File** – A standard text file, this is used by a program to execute the Art Pack itself. It is not strictly required, but when used allows for additional functionality such as the Art Pack Settings setup panel.
- **An optional .autoexec.roku file** – This is another Linux shell script that, if present, instructs the HD1000 to execute the Art Pack upon insertion of the media card containing the Art Pack.

Pictures

Any photos or videos that can be displayed within the Slideshow application on the HD1000 can be used in an Art Pack. Due to the nature of Art Packs, use of video in Art Packs is not recommended unless the video is LiveArt™. If video is used, it is recommended that the art pack be located on a Compact Flash card or network share for best results. Otherwise, any HD1000-compatible memory card or network share may be used for the Art Pack.

Music

Only MP3 files can be used within an Art Pack currently.

The Art Pack Script

Somewhere, there must be a script that contains the commands necessary to execute the Art Pack. This script should be named *ArtPackName.roku*. For instance if you were making an Art Pack named "Vacation", you might want to name your Art Pack *Vacation.roku*. The portion of the script name to the left of the *.roku* is what will appear in the HD1000 user interface, for example "Vacation". If the name is too long to be displayed in its entirety, it is truncated. For example *AReallyLongName.roku* might be displayed as "AReally….". Please note that the script required Unix-style line endings, which precludes the use of *Notepad* in Windows environments. For Windows, the program *Textpad* is an excellent text editor that will save files with whatever line ending style is required, including Unix-style line endings.

Scripts typically look like the following:

```
#!/bin/sh
PARENTDIR=`dirname "$0"`
cd "$PARENTDIR"
ARTPACKER=/usr/local/bin/artpacker
DESCRIPTOR_FILE="./demo.artpack"
if [ -e "$ARTPACKER" -a -e "$DESCRIPTOR_FILE" ]
then
$ARTPACKER "$DESCRIPTOR_FILE" &
fi
```

Most of the script is typical Linux shell scripting. The following is a brief explanation of some of the important lines of the script.

```
ARTPACKER=/usr/local/bin/artpacker
```

This line assigns the path `/usr/local/bin/artpacker` to the variable `ARTPACKER`. The program *artpacker* is a program that exists in version 1.5 and later of the HD1000 software. It was created to execute Art Packs and allow for the use of the Art Pack Settings setup panel.

```
DESCRIPTOR_FILE="./demo.artpack"
```

This line assigns the filename `./demo.artpack` to the variable `DESCRIPTOR_FILE`. A descriptor file is required for the use of *artpacker* (above). A complete description of the descriptor files is available later in this document.

```
if [ -e "$ARTPACKER" -a -e "$DESCRIPTOR_FILE" ]
```

This line tests for the existence of both *artpacker* and the descriptor file. If either of them does not exist we will fall back to a compatibility mode of the Art Pack. While the compatibility mode does work, it is not as efficient as using *artpacker*, nor does it allow use of the Art Pack Settings setup panel.

```
$ARTPACKER "$DESCRIPTOR_FILE" &
```

Both *artpacker* and the descriptor file were found, so execute the Art Pack.

Art Pack Icon

You can create a custom icon for your Art Pack. The icon must be a 32-bit, non-interlaced PNG file with maximum dimensions of 135(w) x 82(h). The icon must be named similarly to your Art Pack script. For example, if your script is *Vacation.roku*

then the icon must me named *Vacation.roku.png*. If this file is not provided or is not located in the proper location, a default icon will be used.

Art Pack Descriptor File

As explained above, Art Packs use an Art Pack descriptor file. This is just a simple text file containing the configuration of the Art Pack. Unlike shell scripts, the descriptor file can use Windows-style line endings, which means that *Notepad* can be used to create and edit them. The format of the file is quite simple: each line contains an option and a value, separated by a '='. For example:

```
ArtPackname=Roku Demo
InfoMode=short
ZoomMode=fit
DelayTime=10000
EnableMusic=Yes
MusicPath=../Pictures
ImagePath=../Music
```

The following is an explanation of each line:

```
ArtPackname=Roku Demo
```

`ArtPackname` is simply the name of the Art Pack. This does not have to be the same as the shell script, but usually is the same. This name is how the Art Pack will appear in the Art Pack Settings setup panel.

```
InfoMode=short
```

`InfoMode` is the style of information that will be displayed for each picture shown in the Art Pack. Valid choices are `short`, `long` and `none`.

```
ZoomMode=fit
```

`ZoomMode` is how the images will be displayed during the slideshow. Valid values are `fit`, `fill`, and `smart` (for SmartDisplay™). These settings are identical to the settings available within the image viewer application on the HD1000.

```
DelayTime=10000
```

`DelayTime` set how long each picture is displayed before advancing to the next picture. The value is in milliseconds, in this case 10000, or 10 seconds.

```
EnableMusic=Yes
```

`EnableMusic` determines whether or not music will be played along with the images. Valid values are Yes or No.

```
MusicPath=../Pictures
ImagePath=../Music
```

`MusicPath` and `ImagePath` are the paths to the music and images for the Art Pack, respectively. The paths are relative to the location of the descriptor file.

The .autoexec.roku File

As an option, you can include a `.autoexec.roku` file. This file is only required if you want the HD1000 to automatically launch your Art Pack upon insertion of the memory card containing the Art Pack. This applies to memory cards only and not to network shares or the built-in storage. If you choose to use a `.autoexec.roku` file, it must exist in the root directory of the flash card. This file is a very simple shell script:

```
#!/bin/sh
cd `dirname "$0"`
./Vacation-Scripts/Vacation.roku
```

The final line is a path to your Art Pack shell script. Like all shell scripts, it requires Unix-style line endings.

File Hierarchy

Below is a representative directory hierarchy of a typical Art Pack:

`/`

This directory is the root directory of an Art Pack. If it is on a media card, this is the root directory of the media card. If it is on a network share, this directory can be any directory in the share. If on a flash card, the .autoexec.roku file would be located here.

`ArtPackName-Scripts/`

This directory contains the various files necessary to execute the Art Pack, including *ArtPackName.roku*, *ArtPackName.roku.png*, and *artpackname.artpack*.

`Pictures/`

This directory typically contains all the pictures associated with the Art Pack.

`Music/`

This directory typically contains the music associated with the Art Pack.

More Information

For further help with Art Packs, please visit http://www.rokulabs.com/support or email support@rokulabs.com. For marketing related inquiries, please contact Sally Espinoza at sespinosa@rokulabs.com.